Number 2025-22

New York State Behavioral Risk Factor Surveillance System Brief

The Behavioral Risk Factor Surveillance System is an annual telephone survey of adults developed by the Centers for Disease Control and Prevention conducted in all 50 States, the District of Columbia, and several United States Territories. The New York Behavioral Risk Factor Surveillance System is administered by the New York State Department of Health to provide statewide and regional information on behaviors, risk factors, and use of preventive health services related to the leading causes of chronic and infectious diseases, disability, injury, and death.

Lung Cancer Screening

New York State Adults ages 50-80, 2022

Introduction

Lung cancer is one of the most commonly diagnosed cancers and the leading cause of cancer death in New York State (NYS). Each year, about 13,800 New Yorkers are diagnosed with lung cancer and about 6,500 people die from the disease.[1] Screening for lung cancer can help find it early when it is easier to treat. Tobacco smoking causes over 80% of lung cancer cases.[1] Second-hand smoke, environmental exposures such as radon, and some infections can also increase lung cancer risk.[2] Lung cancer screening is recommended for adults who are at high risk for developing the disease because of their smoking history and age.[3]

Lung Cancer Screening Eligibility

The United States Preventive Services Task Force recommends annual lung cancer screening for adults aged 50 to 80 years with a 20 pack-year smoking history and who currently smoke or have quit smoking within the past 15 years (Figure 1). One pack-year of smoking is equivalent of smoking 20 cigarettes (one pack) per day for one year.[3] This report is the first assessment of eligibility and screening among New Yorkers by the NYS Department of Health.

Health Equity

Lung cancer risk increases with age and varies across sex and racial and ethnic groups. The average age of diagnosis is 70 years old.[2] Historically, differences in smoking patterns among Black men and women of all race/ethnicities have meant fewer are eligible for lung cancer screening and prevented these groups from accessing it, despite evidence of increased risk of lung cancer.[2,4-6] Even when eligible, Black individuals are less likely to be screened than white individuals, resulting in later-stage diagnoses and poorer outcomes.[5,7] Ensuring equitable screening is a critical public health strategy to address disparities in the burden of lung cancer. The NYS Department of Health supports screening education for both patients and providers and is committed to addressing disparities in lung cancer and tobacco use.

Key Findings

- An estimated 1 in 10 New Yorkers aged 50 to 80 years are eligible for lung cancer screening, approximately 648,000 people (Table 1 and Figure 2).
- Among those eligible, only 1 in 5 report being screened for lung cancer in the past year, approximately 129,000 people (Table 3 and Figure 3).
- Groups with significantly higher eligibility for lung cancer screening include people aged 50 to 80 years: living with chronic obstructive pulmonary disease (COPD, 32.6%); reporting past 30-day cannabis use (20-30 days: 24.9%; 1-19 days: 17.2%); with veteran status (20.1%); reporting frequent mental distress (19.4%); residing in rural counties (19.1%); reporting excessive alcohol use (16.6%); with annual household income <$50,000 (<$25,000: 16.1%; $25,000-$49,999: 14.9%); living with cardiovascular disease (15.9%); and living with a disability (14.6%) (Figure 2).
- People living with COPD reported lung cancer screening more often than others, and people aged 50-59 years reported lung cancer screening less often than those aged 60-69 years. There were no other significant differences in screening by demographics or health characteristics.

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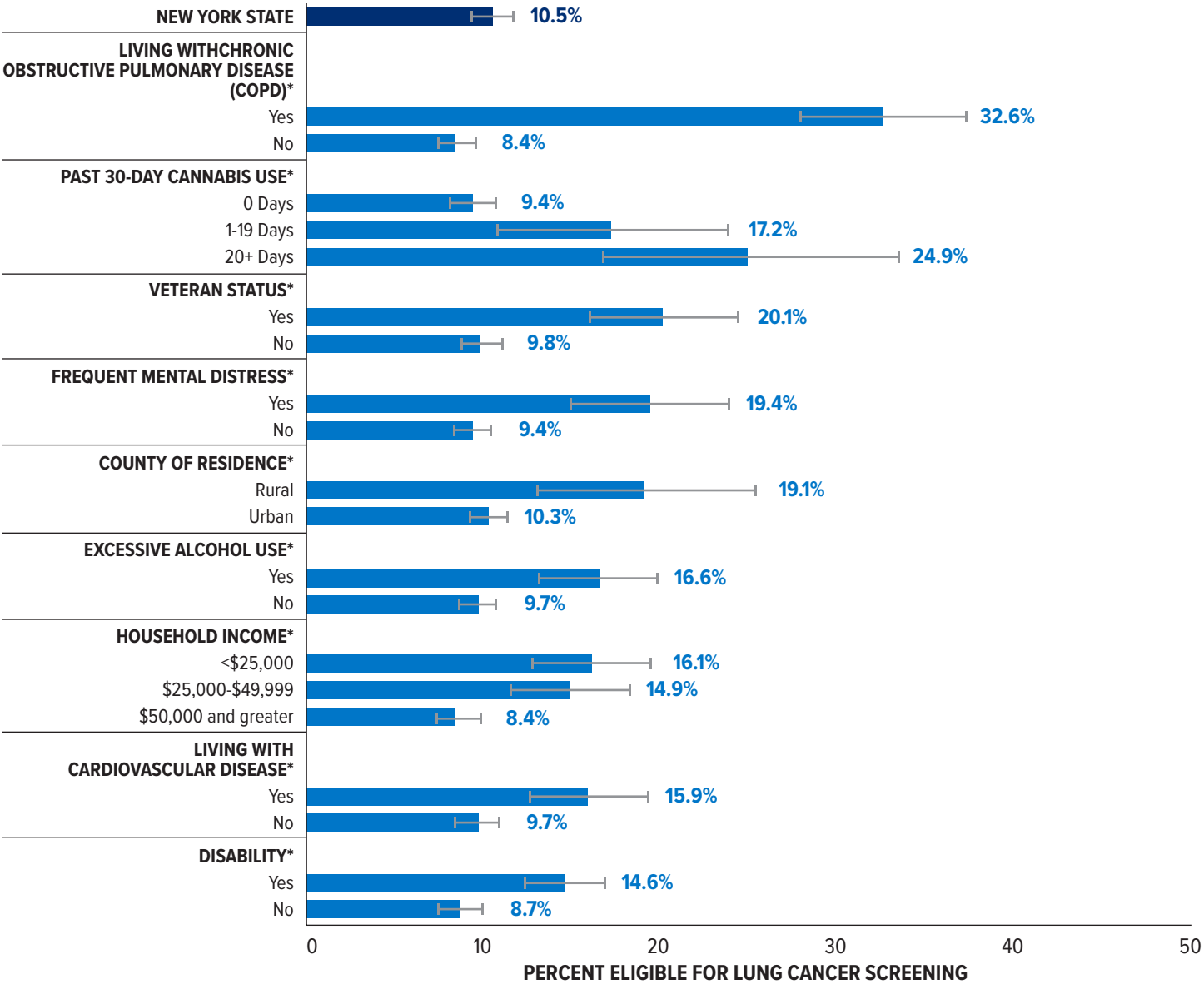
Figure 1. United States Preventive Services Task Force (USPSTF) Lung Cancer Screening Eligibility Criteria

Are between 50 and 80 years old

Currently smoke or formerly smoked and quit in the last 15 years

Have 20-pack years or more smoking history

Figure 2. Eligibility for Lung Cancer Screening by Selected Demographics and Health Characteristics, Adults Aged 50 to 80 Years, Behavioral Risk Factor Surveillance System, 2022



Note: Error bars represent 95% confidence intervals.

*Significantly different. Although a 95% confidence interval is not a test of statistical significance, categories whose 95% confidence intervals do not overlap can be considered significantly different.

Table 1. Percent of New York State Adults Adults Aged 50 to 80 Years, Eligible for Lung Cancer Screening by Demographic Characteristics, New York State Behavioral Risk Factor Surveillance System, 2022

	Eligible for Lung Cancer Screening per USPSTF Criteria[a]		
New York State [n=8,698]	**Percent**	**95% CI[b]**	**Estimated Weighted Number of People**
New York State Statewide	10.5	9.5 - 11.6	648,000
Region			
New York City (NYC)	7.8	6.2-9.3	181,000
New York State exclusive of NYC	12.3	10.9-13.6	467,000
Sex[c]			
Female	9.8	8.3-11.2	318,000
Male	11.4	10.0-12.8	330,000
Race/Ethnicity			
Black, non-Hispanic	5.8	3.8-7.7	44,000
Hispanic	9.5	4.9-14.1	65,000
White, non-Hispanic	12.1	10.9-13.2	433,000
All other race groups combined, non-Hispanic[d]	8.4	5.4-11.3	70,000
Age			
50-59	10.2	8.4-12.0	214,000
60-69	11.4	9.8-12.9	262,000
70-80	10.3	8.1-12.4	161,000
Education Attainment			
Less than high school	15.4	10.5-20.3	109,000
High school or GED	15.6	13.4-17.8	233,000
Some post-high school	12.1	10.1-14.1	205,000
College graduate	4.5	3.7-5.2	99,000
Annual Household Income			
Less than $25,000	16.1	12.8-19.5	142,000
$25,000 - $49,999	14.9	11.8-18.0	170,000
$50,000 and greater	8.4	7.2-9.6	237,000
Missing[e]	7.6	5.8-9.3	99,000
Employment Status			
Employed/Self-Employed	9.0	7.6-10.5	246,000
Unemployed	9.9	6.1-13.6	30,000
Not in Labor Force	12.0	10.5-13.5	365,000
Healthcare Coverage			
Private	8.1	6.8-9.4	199,000
Medicare	11.3	9.6-13.0	233,000
Medicaid	14.4	9.6-19.3	83,000
Other insurance[f]	14.7	10.7-18.7	83,000
No insurance	12.0	6.2-17.8	20,000
Location of Residence[g]			
Rural County	19.1	13.0-25.3	31,000
Urban County	10.3	9.3-11.3	617,000
Veteran Status			
Yes	20.1	16.0-24.3	93,000
No	9.8	8.8-10.8	554,000

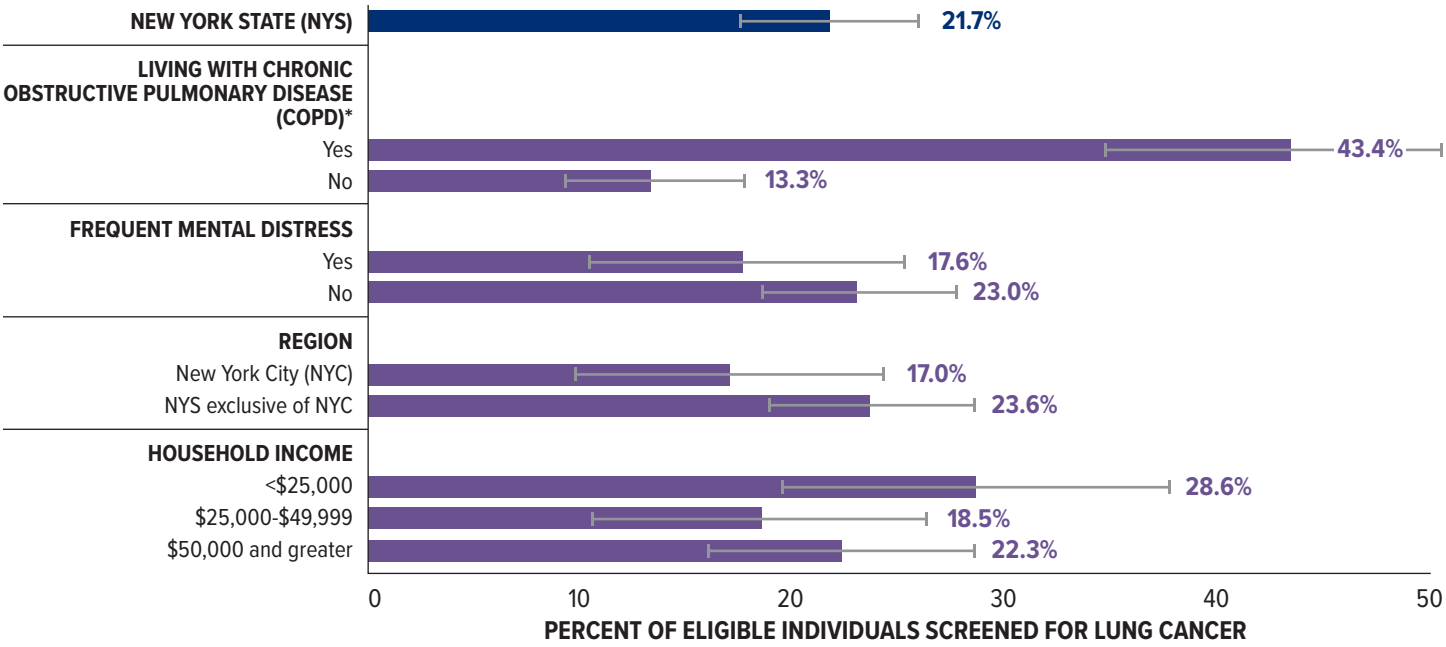
Notes: [a]Recommendations at the time of this survey were based on those of the United States Preventive Services Task Force, updated March 2021. [b]%= Weighted percentage; 95% CI= 95% confidence interval. When comparing estimates, the 95% confidence interval (95% CI) provides the statistical range containing the true population percentage with a 95% probability.* Although a 95% confidence interval is not a test of statistical significance, categories whose 95% confidence intervals do not overlap can be considered significantly different. Estimates that have a confidence interval with a half-width of greater than 10, or when the relative standard error (RSE) is greater than 30% are unstable and should be used with caution. [c]Based on respondent's sex at birth or current gender identity at time of interview if sex at birth is missing. [d]All other race groups combined, non-Hispanic includes individuals who identify as: American Indian, Alaskan Native, Asian, Native Hawaiian or other Pacific Islander, Multiracial, or other race. [e]"Missing" category included because more than 10% of the sample did not report income. [f]Other insurance includes TRICARE, VA/Military, Indian Health Service, state sponsored health plan, or other government plan. [g]Urban/ rural status is defined by National Center for Health Statistics classification. Urban counties are those classified as metropolitan or micropolitan and rural counties are non-core counties not in a metropolitan or micropolitan statistical area.[8]

Table 2. Percent of New York State Adults Adults Aged 50 to 80 Years, Eligible for Lung Cancer Screening by Selected Health Characteristics, New York State Behavioral Risk Factor Surveillance System, 2022

	Eligible for Lung Cancer Screening per USPSTF Criteria[a]		
New York State [n=8,698]	Percent	95% CI[b]	Estimated Weighted Number of People
Frequent Mental Distress[c]			
Yes	19.4	14.8-23.9	144,000
No	9.4	8.5-10.4	495,000
Disability Status[d]			
Yes	14.6	12.3-16.8	286,000
No	8.7	7.7-9.8	357,000
Reported Excessive Alcohol Use[e]			
Yes	16.6	13.3-19.8	120,000
No	9.7	8.6-10.7	497,000
Past 30-day Cannabis Use			
0 days	9.4	8.2-10.6	312,000
1-19 days	17.2	10.7-23.7	30,000
20+ days	24.9	16.7-33.2	31,000
Chronic Obstructive Pulmonary Disease (COPD)			
Yes	32.6	27.9-37.3	176,000
No	8.4	7.4-9.4	467,000
Cardiovascular Disease			
Yes	15.9	12.6-19.3	134,000
No	9.7	8.7-10.8	514,000
Asthma			
Yes	11.9	9.3-14.5	13,000
No	10.3	9.2-11.4	31,000
Has a Regular Healthcare Provider			
Yes	10.3	9.3-11.4	579,000
No	14.1	9.9-18.3	62,000
Lack of Reliable Transportation[f]			
Yes	11.3	5.6-16.9	14,000
No	11.7	9.5-13.8	210,000

Notes: [a]Recommendations at the time of this survey were based on those of the United States Preventive Services Task Force, updated March 2021. [b]%= Weighted percentage; 95% CI= 95% confidence interval. When comparing estimates, the 95% confidence interval (95% CI) provides the statistical range containing the true population percentage with a 95% probability.* Although a 95% confidence interval is not a test of statistical significance, categories whose 95% confidence intervals do not overlap can be considered significantly different. Estimates that have a confidence interval with a half-width of greater than 10, or when the relative standard error (RSE) is greater than 30% are unstable and should be used with caution. [c]Frequent mental distress is defined as reporting poor mental health for 14 or more days out of the past 30 days. [d]Respondents who reported at least one type of disability (cognitive, self-care, independent living, vision, mobility, or hearing). [e]Respondents who reported either binge or heavy drinking. Binge drinking is defined as consuming 4 or more drinks for women and 5 or more drinks for men on a single occasion. Heavy drinking is defined as consuming 8 or more drinks per week for women and 15 or more drinks per week for men. [f]Respondents who reported lack of reliable transportation for medical appointments, meetings, work, or getting things needed for daily living during the past 12 months.

Figure 3. Percent of New York State Adults Screened for Lung Cancer in the Past Year among those Eligible for Screening, by Selected Demographic and Health Characteristics, New York State Behavioral Risk Factor Surveillance System, 2022



Note: Error bars represent 95% confidence intervals.

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Table 3. Percent of New York State Adults Screened for Lung Cancer in the Past Year among those Eligible for Screening, by Selected Demographic and Health Characteristics, New York State Behavioral Risk Factor Surveillance System, 2022

	Screened in the Past Year (of those eligible)[a]		
New York State [n=889]	**Percent[a]**	**95% CI[b]**	**Estimated Weighted Number of People**
New York State Statewide	21.7	17.8-25.6	129,000
Region			
New York City (NYC)	17.0	9.7-24.3	29,000
New York State exclusive of NYC	23.6	19.0-28.3	100,000
Sex[c]			
Female	25.5	19.5-31.5	51,000
Male	17.7	13.0-22.4	79,000
Age			
50-59	12.3	6.7-17.9	25,000
60-69	29.1	22.3-35.8	71,000
70-80	24.6	16.7-32.4	33,000
Race/Ethnicity			
All other racial/ethnic groups combined[d]	19.1	10.9-27.3	29,000
White	24.1	19.4-28.8	97,000
Annual Household Income			
Less than $25,000	28.6	19.8-37.4	35,000
$25,000 - $49,999	18.5	10.8-26.2	29,000
$50,000 and greater	22.3	16.2-28.4	50,000
Missing[e]	16.6*	6.2-27.0	15,000
Frequent Mental Distress[f]			
Yes	17.6	10.1-25.1	23,000
No	23.0	18.5-27.6	106,000
Disability Status[g]			
Yes	22.6	17.0-28.3	57,000
No	21.3	15.8-26.8	72,000
Reported Excessive Alcohol Use[h]			
Yes	19.4	10.7-28.1	22,000
No	22.7	18.1-27.2	105,000
Chronic Obstructive Pulmonary Disease (COPD)			
Yes	43.4	34.9-51.9	71,000
No	13.3	9.4-17.3	57,000
Cardiovascular Disease			
Yes	24.5	15.5-33.6	30,000
No	21.0	16.6-25.3	99,000
Asthma			
Yes	27.3	17.7-36.9	27,000
No	20.4	16.1-24.7	101,000

Notes: [a]Recommendations at the time of this survey were based on those of the United States Preventive Services Task Force, updated March 2021. [b]%= Weighted percentage; 95% CI= 95% confidence interval. When comparing estimates, the 95% confidence interval (95% CI) provides the statistical range containing the true population percentage with a 95% probability. *Although a 95% confidence interval is not a test of statistical significance, categories whose 95% confidence intervals do not overlap can be considered significantly different. *Estimates that have a confidence interval with a half-width of greater than 10, or when the relative standard error (RSE) is greater than 30% are unstable and should be used with caution. [c]Based on respondent's sex at birth or current gender identity at time of interview if sex at birth is missing. [d]All other racial/ethnic groups combined includes individuals who identify as: Black, Hispanic, American Indian, Alaskan Native, Asian, Native Hawaiian or other Pacific Islander, Multiracial, or other race. [e]"Missing" category included because more than 10% of the sample did not report income. [f]Frequent mental distress is defined as reporting poor mental health for 14 or more days out of the past 30 days. [g]Respondents who reported at least one type of disability (cognitive, self-care, independent living, vision, mobility, or hearing. h Respondents who reported either binge or heavy drinking. Binge drinking is defined as consuming 4 or more drinks for women and 5 or more drinks for men on a single occasion. Heavy drinking is defined as consuming 8 or more drinks per week for women and 15 or more drinks per week for men.

References

1. New York State Department of Health. Lung Cancer. Cancer. Accessed May 28, 2025. https://www.health.ny.gov/diseases/cancer/lung/index.htm.
2. Thandra KC, Barsouk A, Saginala K, Aluru JS, Barsouk A. Epidemiology of lung cancer. *Contemp Oncol* (Pozn). 2021;25(1): 45-52. doi:10.5114/wo.2021.103829.
3. US Centers for Disease Control. Lung Cancer Statistics. Lung Cancer. June 12, 2024. Accessed May 28, 2025. https://www.cdc.gov/lung-cancer/statistics/index.html.
4. Haddad DN, Sandler KL, Henderson LM, Rivera MP, Aldrich MC. Disparities in Lung Cancer Screening: A Review. *Ann Am Thorac Soc*. 2020;17(4):399-405. doi:10.1513/AnnalsATS.201907-556CME.
5. Kathuria H, Wiener RS. Toward Racial Equity in Lung Cancer Screening Eligibility. *JCO*. 2024;42(17):2001-2004. doi:10.1200/JCO.24.00351.
6. Randhawa S, Sferra SR, Das C, Kaiser LR, Ma GX, Erkmen CP. Examining Gender Differences in Lung Cancer Screening. *J Community Health*. 2020;45(5):1038-1042. doi:10.1007/s10900-020-00826-8.
7. Navuluri N, Morrison S, Green CL, et al. Racial Disparities in Lung Cancer Screening Among Veterans, 2013 to 2021. *JAMA Network Open*. 2023;6(6):e2318795. https://pubmed.ncbi.nlm.nih.gov/37326987/.
8. Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS). NCHS Urban-Rural Classification Scheme for Counties. Retrieved on March 4, 2025. https://www.cdc.gov/nchs/data-analysis-tools/urban-rural.html. New York State Caner Registry. Cancer Incidence and Mortality in New York State, 1976-2022. https://www.health.ny.gov/statistics/cancer/registry. Released in April 2025.

Behavioral Risk Factor Surveillance System Questions

Eligibility

- How old were you when you first started to smoke cigarettes regularly?
- On average, when you smoke(d), about how many cigarettes do/did you usually smoke each day?

Screening

- The next question is about CT or CAT scans of your chest area. During this test, you lie flat on your back and are moved through an open, donut shaped x-ray machine. Have you ever had a CT or CAT Scan of your chest area?
- Were any of the CT or CAT Scans of your chest area done mainly to check or screen for lung cancer?
- When did you have your most recent CT or CAT scan of your chest area mainly to check or screen for lung cancer?

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Program Contributions

New York State Department of Health

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Bureau of Cancer Prevention and Control

Bureau of Tobacco Control

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